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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Georg BOGNER et al.

Serial No.: 10/529,675

Filed: April 28, 2005

For: Illumination Device Having Luminous Spots
Formed By Light Emitting Diodes

Examiner: Negron, Ismael
Group Art: 2885

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March 14, 2008

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Name of applicant, assignee, or Registered Representative

Signature

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Commissioner for Patents

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

SIR:

Applicants request review of the Final Rejection in the above-referenced application. No amendments are being filed with this request.

The review is requested for the reasons set forth on the following pages.

Claims 22-24, 26-31, 33-36 and 45 stand rejected under 35 U.S.C. §102 as anticipated by U.S. Patent Application Publication No. 2002/0006040 (“*Kamada*”).

Claims 25, 32 and 37-44 stand rejected under 35 U.S.C. §103 as unpatentable over *Kamada*. For the following reasons, reconsideration and withdrawal of these rejections are respectfully requested.

Independent claim 22 recites “a thermally conductive carrier having a flat mounting surface and a plurality of luminous spots arranged in a grid format on the flat mounting surface of said carrier, each of said luminous spots having a plurality of light emitting diodes and a submount”. Independent claim 45 recites “a plurality of luminous spots arranged on said flat mounting surface, each of said luminous spots being arranged in a respective one of said holes and including a group of light emitting diodes arranged on a submount”.

As described in more detail below, *Kamada* fails to disclose, teach or suggest these limitations because *Kamada* fails to teach or suggest “luminous spots having a plurality of light emitting diodes and a submount” or “luminous spots being arranged in a respective one of said holes and including a group of light emitting diodes arranged on a submount”.

The Examiner (pg. 3 of the Office Action) alleges that the reference numeral 11 in FIG. 6 of *Kamada* is the claimed submount. Applicants disagree because, as will be described in more detail below, *Kamada* discloses that reference character 11 is a dent or depressed area in a substrate or carrier 10.

Kamada discloses an LED luminaire formed by a plurality of LED chips disposed on a MID (molded interconnect device) substrate (see abstract of *Kamada*). FIG. 6 of *Kamada* clearly shows the location of a mere dent 11.

A more detailed view of this dent or depressed area is shown in FIGS. 1 and 31 of *Kamada*. Indeed, FIG. 1 shows that the dent is a “hollowed out” area of the substrate. In particular, FIG. 1 and 2 of *Kamada* show a three dimensional circuit substrate 10 in the form of a MID is formed to have an array of dents 11 with a plurality of LED chips 1 mounted in the dents, i.e., on a bottom or side of the dents (see paragraph 0046 of *Kamada*). *Kamada* further discloses the method of manufacturing the substrate 10 in paragraphs 0047-0050 which involves injection molding a rectangular base from insulative material and then providing the dents 11 (see paragraph 0047). A metal film is applied and selectively removed to form circuit parts 12 (with the film) and non-circuit parts (without the film) (see paragraphs 0048-0050). The LED chips 1 are mounted directly in the dents 11 and are connected to the circuit parts 12 (paragraph 0051). Thus, *Kamada* merely teaches that reference numeral 11 indicates the location of a dent in the substrate 10.

Accordingly, *Kamada* fails to disclose “each luminous spot having a plurality of light emitting diodes and a submount” as expressly recited in independent claim 22. Likewise, *Kamada* fails to teach or suggest each of said luminous spots being arranged in a respective one of said holes and including a group of light emitting diodes arranged on a submount such that said submount is arranged between said group of light emitting diodes and said carrier, as expressly recited in independent claim 45.

Moreover, paragraph [0123] of *Kamada* describes an embodiment in which only one LED 1 is arranged on each heat emitter 16A (see Fig. 26). Independent claims 22 and 45 each require luminous spots that have a plurality of light emitting diodes and a submount. Therefore, without the luminous spots that have a plurality of light emitting diodes, there can be no submounts in *Kamada* that have a good thermal conductivity. Clearly, *Kamada* thus fails to teach or suggest a

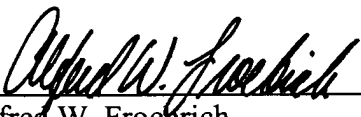
submount that would exhibit good thermal conductivity. In view of the foregoing, the rejection of independent claims 22 and 45 should be withdrawn.

Reconsideration and withdrawal of all the rejections under 35 U.S.C. §102(b) and §103(a) are therefore in order, and a notice to that effect is respectfully requested.

In view of the patentability of independent claims 22, 38 and 45, dependent claims 23-37 and 39-44 are also patentable over the prior art for the reasons set forth above, as well as for the additional recitations contained therein.

Applicant respectfully submits that this application is in condition for allowance, and such action is respectfully requested.

Respectfully submitted,
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Dated: March 14, 2008